



Shaping the city we want

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International Telecommunication Union



- UN specialized agency for ICTs
- unique public/private partnership

Members:

- 193 Member States (Governments and regulatory bodies)
- Over 700 Private Sector (Sector Members and Associates)
- Over 63 Academia

ITU-T's environmental programme



Using ICTs to protect the environment & shape the city we want



- **Develop international standards** to protect the environment
- **Assist countries & cities** to develop policies and implement standards on climate change adaptation and mitigation
- **Help companies** becoming more sustainable and socially responsible
- **Research** and development on areas which include e-waste, energy efficiency and smart sustainable cities
- Raise **awareness** on role of ICT in tackling environmental challenges

ITU-T Study Group 5



Next meeting: 8-19 December
2014, Koichi, India

Focus Group on Smart Sustainable Cities



Next meeting: 13-16 October
2014, Geneva, Switzerland

Joint Coordination Activity on ICT and Climate Change



Next e-meeting: 10 October
2014, Geneva, Switzerland

Focus Group on Smart Water Management



Next meeting: 17 October
2014, Geneva, Switzerland

Regional groups

Study Group 5 Regional Group for the **Americas**

Study Group 5 Regional Group for **Asia and the Pacific**



Study Group 5 Regional Group for the **Arab Region**

Study Group 5 Regional Group for **Africa**

Research and development

Identifying standards & policy needs

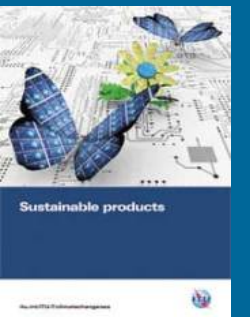
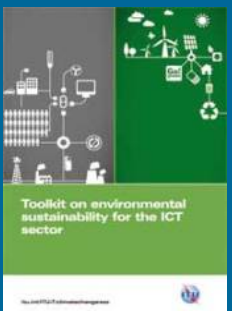
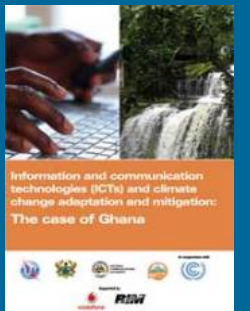
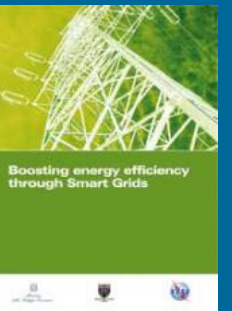
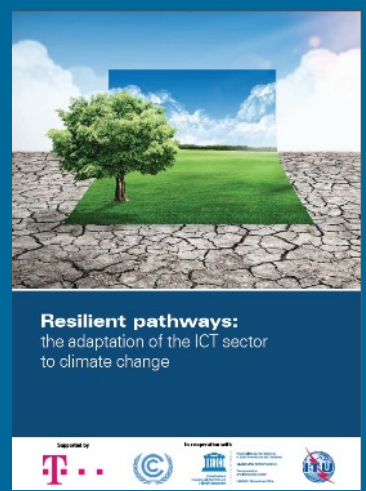


- Demonstrate the potential GHG abatement of “Greening by ICTs” solutions in Korea between 2011 and 2020;
- The methodology used is Recommendation ITU-T L.1410.



Research and development

- Latest publications released in March and April 2014



Latest publications



Resilient pathways:
the adaptation of the ICT sector
to climate change

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in Latin America and the Caribbean
Cluster Office for MERCOSUR
Communication
and Information Sector
UNESCO Membership Office



Partnering for solutions:
ICTs in Smart Water Management



United Nations
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Cluster Office for MERCOSUR
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and Information Sector
UNESCO Membership Office



Reports released in March and April 2014

Global portal on ICTs, environment and climate change



Launched in February 2014

ITU-T GREEN ICT STANDARDS



ITU develops Green ICT Standards to create, enable and ensure regulation for Green ICTs; continuing its aim on closing the standardization gap.

CLIMATE CHANGE



Promoting the use of ICTs in both climate change adaptation and mitigation, for the prevention of environmental degradation and the reduction of GHG emissions.

SMART WATER MANAGEMENT



Promoting ICT use towards a smarter more sustainable way to manage water resources.

SMART SUSTAINABLE CITIES



Maximizing contributions of ICTs to smart grids and smart meters, smart buildings and urban planning as well as smart mobility and electric vehicles towards the development of smart sustainable cities.

E-WASTE



Empowering institutional and governmental capabilities on the reduction of E-Waste and municipal waste.

GREEN ICT PROCUREMENT



Strengthening capacities within institutions to procure the appropriate Smart Logistics and Green ICTs.

CLOUD COMPUTING AND DATA CENTERS



Realizing the potential of cloud computing and data centres on environmental sustainability and climate change mitigation and adaptation.

GREENING ICT SUPPLY CHAINS



Advocating the Greening of ICT supply chains for sustainability as well as the use of ICT tools to help measure, certify and lower the impact of the supply chain of other products

Green ICT standards database



- Online dynamic database with updated information on new approved and published ITU-T Recommendation and Supplements



L.1500	Framework for information and communication technologies and adaptation to the effects of climate change	Recommendation ITU-T L.1500 describes a framework for information and communication technologies (ICTs) and adaptation to the effects of climate change. This framework identifies and defines the basis for development of the following Recommendations: " Recommendation L_Adaptation_Countries on how ICTs can help countries to adapt to the effects of climate change. It will also provide a framework and a checklist for countries to integrate ICTs into their national strategies for adaptation to climate change." Recommendation L_Infrastructure_Adaptation on adapting the ICT sector and its infrastructure to the effects of climate change. It will provide a set of guidelines, requirements and best practices to be referred to during operation, maintenance, upgrade and improvement of existing infrastructure and when planning, designing and constructing ICT projects, goods and services to adapt to the effects of climate change.	Approved	2014-06-22
L.1501	Best practices on how countries can utilize ICTs to adapt to the effects of climate change	This Recommendation provides guidance on how ICTs can help countries to adapt to the effect of climate change. It also provides a framework and a checklist for countries to integrate ICTs in their national climate change adaptation strategies. This recommendation is part of L.1500 series recommendations on Adaptation to the effects of Climate Change. It is designed to assist countries in integrating ICTs into their national climate change adaptation strategies. This Recommendation describes the complexity of climate change and explains why countries need to adapt. It also describes the role of ICTs in helping countries respond to the effects of climate change by looking at how various sectors use ICTs; including the ICT sector. It is designed to be a guide for policy and regulation makers in developing policies and regulations regarding adaptation of nations or countries, management, and policies and regulations to climate changes and provides a "multi-level framework for ICTs integration in climate change adaptation" to assist countries in integrating ICTs in their national climate change adaptation strategies.	Consented / Determined	Not yet approved

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Green ICT Standards and Supplements

Rec. No.	Title	Summary	Status	Approval Date
L.1000	Universal power adapter and charger solution for mobile terminals and other hand-held ICT devices	Recommendation ITU-T L.1000 provides high level requirements for a universal power adapter and charger solution that will reduce the number of power adapters and chargers produced and recycled by widening their application to more devices and increasing their lifetime. The solution also aims to reduce energy consumption. The longer life cycle and possibility of avoiding device duplication reduces the demand on raw materials and waste. The universal power adapter and charger solution is designed to serve the vast majority of mobile terminals and other ICT devices.	Approved	2011-06-13
L.1001	External universal power adapter solutions for stationary information and communication technology devices	Recommendation ITU-T L.1001 provides requirements for a universal power adapter solution (UPA) for stationary information and communication technology (ICT) devices that will reduce the number of power adapters that are produced by widening their application by more devices, thus enabling their reuse and increasing their life expectancy. The solution also aims to reduce energy consumption. The longer the life cycle and possibility of avoiding device duplication reduces the demand on raw materials and limits the amount of e-waste. The universal power adapter solution for stationary ICT equipment is designed to serve the vast majority of ICT devices.	Approved	2012-11-29
L.1002	External universal power adapter solutions for portable information and communication technology devices	This Recommendation defines the requirements for a universal power adapter solution (UPA) designed for portable ICT devices. It is complementary to [ITU-T L.1000] and [ITU-T L.1001] and aims to cover the widest possible range of ICT devices for portable use within the defined voltage and power ranges. It firstly describes the UPA basic configuration, consisting of a power adapter block with a detachable input cable and a detachable output cable to the ICT device. Then, different general requirements for the UPA and their interfaces, including cables, connectors, voltage, current, ripple noise, energy efficiency, no load power, safety, electromagnetic compatibility, resistibility and eco-environmental specifications are defined. All the requirements have been set with the aim to reduce the e-waste and increase the usability. This Recommendation intends to complement and to make use, as far as possible, of what defined in IEC/Technical Specification 62700/Ed1.	Consented / Determined	Not yet approved
L.1005	Test suites for assessment of the universal charger solution	Recommendation ITU-T L.1005 considers the creation of specific test suites to assess certain functional aspects of the: energy efficiency, interworking, safety and electromagnetic compatibility (EMC) of the universal charger solution (UCS). Such testing is required to guarantee a minimum quality level	Approved	2014-02-13

Raising awareness



- Virtual meeting of the Joint Coordination Activity on ICT and Climate Change
10 October 2014
- Forum on "Sustainable smart cities: from vision to reality"
13 (morning) October 2014, Geneva, Switzerland
- 6th meeting of the Focus Group on Smart Sustainable Cities
13 (afternoon) -16 October 2014, Geneva, Switzerland
- 4th meeting of the Focus Group on Smart Water Management
17 October 2014, Geneva Switzerland
- Meeting of the ITU-T Study Group 5
8-19 December 2014, Koichi, India
 - Focus Group on Smart Water Management – 9 December 2014
 - Joint Coordination Activity on ICT and Climate Change – 9 December 2014
 - Focus Group on Smart Sustainable Cities – 10 to 12 December 2014
 - ITU Symposium on ICTs, Environment and Climate Change – 15 December 2014



**Join the
discussions!**

Envisioning a Sustainable Future...



- The role of international standards and policies is key.
- Smart sustainable city should be seen as a “System of Systems”.
- City leaders to partner effectively with other levels of governments, ICT industry, NGOs, Universities, etc.

Additional information

- **ITU-T/SG5 “Environment & Climate Change”**
itu.int/go/tsg5
- **ITU-T and Climate Change**
itu.int/go/ITU-T/climate



THANK YOU!
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